

AMENDMENT TO THE CLAIMS

Please cancel Claims 17 and 52 without prejudice and amend Claims 1, 3, 4, 9-12, 14, 15, 18-25, 33, 34, 37, 39 and 47-51 as follows:

1. (Currently Amended) A hinge for use with an electronic device, the hinge comprising:

a cam comprising a cam surface, which comprises a first sliding surface, a first stop surface, a second sliding surface and a second stop surface, and at least two stop surfaces formed therein wherein the first stop surface is located between the first and second sliding surfaces;

a cam follower comprising at least one cam following tip arranged to contact the cam surface;

a resilient member arranged to provide a force to urge the cam and the cam follower toward each other, thereby maintaining the contact between the cam follower and the cam;

wherein one of the cam and the cam follower is rotatable about an axis, while the other is substantially non-rotatable about the axis;

wherein the first sliding cam surface comprises an area is configured to cause a first substantially spontaneous sliding of such that contacting the area by the at least one cam following tip thereon, which causes a ~~spontaneous first~~ rotational movement of the rotatable member for a first angle about the axis in a rotational direction; ~~and~~

wherein the first each stop surface is configured to stop the first substantially spontaneous sliding of such that contacting the stop surface by the at least one cam following tip within the first stop surface, which causes to stop the ~~spontaneous first~~ rotational movement;

wherein the second sliding surface is configured to cause a second substantially spontaneous sliding of the at least one cam following tip thereon, which causes a second rotational movement of the rotatable member for a second angle about the axis in the same rotational direction, wherein the first angle is substantially greater than the second angle; and

wherein the second stop surface is configured to stop the second substantially spontaneous sliding of the at least one cam following tip within the second stop surface, which causes to stop the second rotational movement.

2. (Original) The hinge of Claim 1, further comprising a housing configured to at least partially enclose the cam, the cam follower and the resilient member.

3. (Currently Amended) The hinge of Claim 2, wherein the ~~rotatable~~rotational member is rotatable relative to the housing.

4. (Currently Amended) The hinge of Claim 2, wherein the ~~rotatable~~rotational member has a part protruding outside the housing, and wherein the protruding part is configured to be engaged with a piece of an electronic device.

5. (Original) The hinge of Claim 1, further comprising a housing engaged with the non-rotatable member.

6. (Original) The hinge of Claim 1, wherein the cam is the non-rotatable member, and wherein the cam follower is the rotatable member.

7. (Original) The hinge of Claim 1, wherein the cam surface is waving with reference to an imaginary plane perpendicular to the axis.

8. (Original) The hinge of Claim 1, wherein the at least one cam following tip is configured to move on the cam surface along a substantially closed path.

9. (Currently Amended) The hinge of Claim 1, wherein the cam surface ~~comprises an area that does not cause a spontaneous rotational movement of the rotatable member~~further comprises a transition surface contacting the first stop surface and the second sliding surface therebetween, sliding of the at least one cam following tip cause a transitional rotational movement of the rotatable member for a transitional angle, wherein the transitional angle is substantially smaller than the first and second angles.

10. (Currently Amended) The hinge of Claim 1, wherein the ~~spontaneous rotational movement is for a rotational~~second angle about the axis at least is equal to or less than about 220°.

11. (Currently Amended) The hinge of Claim 1, wherein the ~~spontaneous rotational movement is for a rotational~~second angle about the axis at least is equal to about 513°.

12. (Currently Amended) The hinge of Claim 1, wherein the ~~spontaneous rotational movement is for a rotational~~first angle about the axis is at least about 1090°.

13. (Original) The hinge of Claim 1, wherein the cam surface and the at least one cam following tip are arranged such that a rotational movement of the rotatable member about the axis causes a linear movement of the non-rotatable member along the axis.

14. (Currently Amended) The hinge of Claim 1, wherein the cam surface is configured such that a forced rotational movement of the rotatable member about the axis in the rotational direction beyond a predetermined point causes a spontaneous rotational movement of the rotatable member about the axis in the same rotational direction.

15. (Currently Amended) The hinge of Claim 1, wherein the cam surface is configured such that a forced rotational movement of the rotatable member about the axis in thea rotational direction up to less than a predetermined point causes a spontaneous rotational movement of the rotatable member about the axis in a rotational direction opposite to the forced rotational movement.

16. (Original) The hinge of Claim 1, wherein the cam surface comprises at least two sloped surfaces, which are sloped with reference to one another, wherein two of the at least two sloped surfaces meet and form at least one valley or peak along where the two sloped surfaces meet.

17. (Cancelled)

18. (Currently Amended) The hinge of Claim 16, wherein at least one of the first and second ~~at least two~~ stop surfaces is located on an area of the at least two sloped surfaces, and wherein the area does not constitute the at least one valley or peak.

19. (Currently Amended) The hinge of Claim 1, wherein at least one of the first and second ~~at least two~~ stop surfaces comprises a groove formed in the cam surface.

20. (Currently Amended) The hinge of Claim 1, wherein at least one of the first and second ~~at least two~~ stop surfaces comprises a bump formed on the cam surface.

21. (Currently Amended) The hinge of Claim 1, wherein at least one of the first and second ~~at least two~~ stop surfaces is configured to receive the at least one cam following tip.

22. (Currently Amended) The hinge of Claim 1, wherein at least one of the first and second stop surfaces ~~each stop surface~~ is further configured to substantially maintain relative positions of the cam and the cam follower.

23. (Currently Amended) The hinge of Claim 1, wherein at least one of the first and second stop surfaces~~each stop surface~~ is formed along a trajectory of at least one cam following tip.

24. (Currently Amended) The hinge of Claim 1, wherein at least one of the first and second stop surfaces~~each stop surface~~ is configured to substantially block movement of the at least one cam following tip along a path thereof on the cam surface.

25. (Currently Amended) The hinge of Claim 1, wherein at least one of the first and second stop surfaces~~each stop surface~~ comprises a threshold over which the at least one cam following tip is configured to move.

26. (Original) The hinge of Claim 1, wherein the cam and the cam follower are configured such that the at least one cam following tip moves along a substantially closed path as the rotatable member rotates 360° about the axis.

27. (Original) The hinge of Claim 1, wherein the cam surface comprises at least one peak along a closed path about the axis.

28. (Original) The hinge of Claim 1, wherein the cam surface comprises a closed contour surface around the axis, and wherein the closed contour surface comprises at least two uphill and at least two downhill.

29. (Original) The hinge of Claim 1, further comprising a guide hole and a guide rod, wherein the guide hole is formed along the axis in either of the cam and the cam follower, wherein the guide rod extends from the other of the cam and the cam follower, and wherein the guide rod is configured to be inserted in the guide hole.

30. (Original) The hinge of Claim 1, wherein the cam follower comprises two protrusions positioned substantially diametrically with respect to the axis and extending toward the cam surface, and wherein a distal end of each protrusion constitutes the at least one cam following tip.

31. (Original) The hinge of Claim 1, wherein each cam following tip is configured such that a point of the contact of the cam following tip with the cam surface moves as the cam and the cam follower moves relative to each other.

32. (Original) The hinge of Claim 1, further comprising an adapter configured to engaged with the rotatable member and further configured to engage with an electronic device.

33. (Currently Amended) A method of operating a hinge of Claim 1, the method comprising:

providing a hinge, the hinge comprising:

a cam comprising a cam surface, which comprises a first sliding surface, a first stop surface, a second sliding surface and a second stop surface, wherein the first stop surface is located between the first and second sliding surfaces,

a cam follower comprising at least one cam following tip arranged to contact the cam surface,

a resilient member arranged to provide a force to urge the cam and the cam follower toward each other, thereby maintaining the contact between the cam follower and the cam,

wherein one of the cam and the cam follower is rotatable about an axis, while the other is substantially non-rotatable about the axis,

wherein the first sliding surface is configured to cause a first substantially spontaneous sliding of the at least one cam following tip thereon, which causes a first rotational movement of the rotatable member for a first angle about the axis in a rotational direction,

wherein the first stop surface is configured to stop the first substantially spontaneous sliding of the at least one cam following tip within the first stop surface, which causes to stop the first rotational movement,

wherein the second sliding surface is configured to cause a second substantially spontaneous sliding of the at least one cam following tip thereon, which causes a second rotational movement of the rotatable member for a second angle about the axis in the same rotational direction, wherein the first angle is substantially greater than the second angle, and

wherein the second stop surface is configured to stop the second substantially spontaneous sliding of the at least one cam following tip within the second stop surface, which causes to stop the second rotational movement;

rotating the rotatable member in a first rotational direction about the axis up to less than a predetermined angle; and

allowing the rotatable member to spontaneously rotate in a second rotational direction opposite to the first rotational direction about the axis.

34. (Currently Amended) A method of operating a hinge of Claim 1, the method comprising:

providing a hinge, the hinge comprising:

a cam comprising a cam surface, which comprises a first sliding surface, a first stop surface, a second sliding surface and a second stop surface, wherein the first stop surface is located between the first and second sliding surfaces,

a cam follower comprising at least one cam following tip arranged to contact the cam surface,

a resilient member arranged to provide a force to urge the cam and the cam follower toward each other, thereby maintaining the contact between the cam follower and the cam,

wherein one of the cam and the cam follower is rotatable about an axis, while the other is substantially non-rotatable about the axis,

wherein the first sliding surface is configured to cause a first substantially spontaneous sliding of the at least one cam following tip thereon, which causes a first rotational movement of the rotatable member for a first angle about the axis in a rotational direction,

wherein the first stop surface is configured to stop the first substantially spontaneous sliding of the at least one cam following tip within the first stop surface, which causes to stop the first rotational movement,

wherein the second sliding surface is configured to cause a second substantially spontaneous sliding of the at least one cam following tip thereon, which causes a second rotational movement of the rotatable member for a second angle about the axis in the same rotational direction, wherein the first angle is substantially greater than the second angle, and

wherein the second stop surface is configured to stop the second substantially spontaneous sliding of the at least one cam following tip within the second stop surface, which causes to stop the second rotational movement;

rotating the rotatable member in a first rotational direction about the axis beyond a first predetermined angle; and

allowing the rotatable member to spontaneously rotate in the first rotational direction about the axis to a first stop angle.

35. (Original) The method of Claim 34, further comprising:

rotating the rotatable member in the first rotational direction about the axis from the first stop angle up to less than a second predetermined angle; and

allowing the rotatable member to spontaneously rotate in a second rotational direction opposite to the first rotational direction about the axis back to the first stop angle.

36. (Original) The method of Claim 34, further comprising:

rotating the rotatable member in the first rotational direction about the axis from the first stop angle beyond a second predetermined angle;

allowing the rotatable member to spontaneously rotate in the first rotational direction about the axis to a second stop angle.

37. (Currently Amended) A method of operating a hinged electronic device, the method comprising;

providing a hinged electronic device comprising: first and second body pieces, and further comprising ~~a the hinge of Claim 1~~ connecting the first and second body pieces, wherein the hinge comprises:

a cam comprising a cam surface, which comprises a first sliding surface, a first stop surface, a second sliding surface and a second stop surface, wherein the first stop surface is located between the first and second sliding surfaces,

a cam follower comprising at least one cam following tip arranged to contact the cam surface,

a resilient member arranged to provide a force to urge the cam and the cam follower toward each other, thereby maintaining the contact between the cam follower and the cam,

wherein one of the cam and the cam follower is rotatable about an axis, while the other is substantially non-rotatable about the axis,

wherein the first sliding surface is configured to cause a first substantially spontaneous sliding of the at least one cam following tip thereon, which causes a first rotational movement of the rotatable member for a first angle about the axis in a rotational direction,

wherein the first stop surface is configured to stop the first substantially spontaneous sliding of the at least one cam following tip within the first stop surface, which causes to stop the first rotational movement,

wherein the second sliding surface is configured to cause a second substantially spontaneous sliding of the at least one cam following tip thereon, which causes a second rotational movement of the rotatable member for a second angle about the axis in the same rotational direction, wherein the first angle is substantially greater than the second angle,

wherein the second stop surface is configured to stop the second substantially spontaneous sliding of the at least one cam following tip within the second stop surface, which causes to stop the second rotational movement, and

wherein the first body piece is being-connected with the rotatable member, and the second body piece is being-connected with the non-rotatable member;

rotating the first body piece in a rotational direction about the axis relative to the second body piece beyond up to less than a predetermined point; and

allowing a spontaneous rotational movement of the first body piece relative to the second body piece in the ~~opposite~~ rotational direction about the axis.

38. (Previously Presented) The method of Claim 37, wherein the connection between the first body piece and the rotatable member is such that the first body piece is substantially not rotatable with reference to the rotatable member about the axis.

39. (Currently Amended) The method of Claim ~~37~~³⁹, wherein the electronic device further comprises an adapter via which the first body piece and the rotatable member are connected.

40. (Previously Presented) The method of Claim 37, wherein the connection between the second body piece and the non-rotatable member is such that the second body piece is substantially not rotatable with reference to the non-rotatable member about the axis, while

allowing a linear movement of the non-rotatable member with reference to the non-rotatable member along the axis.

41. (Previously Presented) The method of Claim 37, wherein the electronic device further comprises a housing configured to at least partially enclose the cam, the cam follower and the resilient member, wherein the second body piece and the non-rotatable member are connected via the housing.

42. (Previously Presented) The method of Claim 41, wherein the second body piece defines a hollow for receiving the housing.

43. (Previously Presented) The method of Claim 37, wherein at least one of the first and second body pieces comprises a display panel.

44. (Previously Presented) The method of Claim 37, wherein at least one of the first and second body pieces comprises a keypad for inputting characters or numbers.

45. (Previously Presented) The method of Claim 37, wherein the electronic device further comprises an additional hinge, wherein the first and second body pieces are connected with each other via the two hinges.

46. (Previously Presented) The method of Claim 37, wherein the first and second body pieces are configured to rotate with each other about the axis between an open configuration and a closed configuration, and wherein in either of the open and closed configurations, the first and second body pieces can rotate with each other about the axis in one rotational direction only.

47. (Currently Amended) The method of Claim 37, wherein the first and second body pieces are configured to spontaneously rotate relative to the other in a rotational direction about the axis if the first and second body pieces are positioned between the open and closed configurations and if the at least one cam following tip is contacting the first sliding surface area of the cam surface.

48. (Currently Amended) The method of Claim 37, wherein the spontaneous rotational movement of the first body piece relative to the second body piece is for a rotational angle about the axis at least about 10°.

49. (Currently Amended) The method of Claim 37, wherein the spontaneous rotational movement of the first body piece relative to the second body piece is stopped when the

at least one cam following tip contacts at least one of the first and second ~~at least two~~ stop surfaces.

50. (Currently Amended) The method of Claim 37, wherein rotating comprises rotating the first body piece in a rotational direction about the axis relative to the second body piece until the at least one cam following tip contacts at least one of the first and second ~~at least two~~ stop surfaces.

51. (Currently Amended) A method of operating a hinged electronic device, the method comprising:

providing a hinged electronic device comprising: first and second body pieces and further comprising a the hinge of Claim 1 connecting the first and second body pieces, the hinge comprising:

a cam comprising a cam surface, which comprises a first sliding surface, a first stop surface, a second sliding surface and a second stop surface, wherein the first stop surface is located between the first and second sliding surfaces,

a cam follower comprising at least one cam following tip arranged to contact the cam surface,

a resilient member arranged to provide a force to urge the cam and the cam follower toward each other, thereby maintaining the contact between the cam follower and the cam,

wherein one of the cam and the cam follower is rotatable about an axis, while the other is substantially non-rotatable about the axis,

wherein the first sliding surface is configured to cause a first substantially spontaneous sliding of the at least one cam following tip thereon, which causes a first rotational movement of the rotatable member for a first angle about the axis in a rotational direction,

wherein the first stop surface is configured to stop the first substantially spontaneous sliding of the at least one cam following tip within the first stop surface, which causes to stop the first rotational movement,

wherein the second sliding surface is configured to cause a second substantially spontaneous sliding of the at least one cam following tip thereon, which causes a second rotational movement of the rotatable member for a second

angle about the axis in the same rotational direction, wherein the first angle is substantially greater than the second angle,

wherein the second stop surface is configured to stop the second substantially spontaneous sliding of the at least one cam following tip within the second stop surface, which causes to stop the second rotational movement, and

wherein the first body piece is ~~being~~-connected with the rotatable member, and the second body piece is ~~being~~-connected with the non-rotatable member;

rotating the first body piece in a rotational direction about the axis relative to the second body piece up to less than a predetermined point; and

allowing a spontaneous rotational movement of the first body piece relative to the second body piece in the opposite rotational direction about the axis.

52. (Cancelled)